

Work Order ID 50116

July 08, 2009 11:31:11 AM

Page 1

Item ID: D135-751-011

Accept

Setup Start

Revision ID: C

Stop

Item Name: Skidtube Installation

Start Date: 7/10/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 7/31/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D3507	Rev C
-------	-------

100

0.00

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D135-751-011 CHG001

S 09/02/17

110

0.00

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Determine square end of tube and deburr □ 2-Drill #30 pilot holes using DT8678. Do not open holes. □ 3- Deburr holes.

D H 9-7-a

120

0.00

BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend tube as per program on CNC Bender and Dwg D3507. Use 5/16" locator pin on buggy "A".

D H 9-7-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Page 2

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Item ID: D135-751-011
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Start Date: 7/10/2009 Start Qty: 1.00
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Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1-Cut Fwd end of the tube using DT8185□2-Cut Aft end at VC using DT8185□3-Deburr ends□4-Drill Aft & Fwd Cap holes using DT8678□5-Locate DT8870 & Drill Ground wire hole on top of Tube.□6-Locate DT8870 with 3/16cleco in Ground wire hole, then Pilot Drill a								BE 02/07/14
140	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
150	Chemical Conversion Coat per QSI005 4.1	0.00							
HandFinish	Memo	0.00							
Hand Finishing									

⇒ S 02/07/14 (XL)

BE 02/07/14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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July 08, 2009 11:31:11 AM

Stop

Customer:

Reference:

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

190

Skidtubes

0.00

Skidtubes

Memo

0.00

Skidtubes

1-Rivet D3506-1/-3 as per Dwg D3507.

BE 09/07/15

200

QC5- Inspect part completeness to step on W/O

0.00

$\Rightarrow S_{09/07/15}$

QC

Memo

0.00

Quality Control

46

6

210

Pressure, Wash per QSI005 4.3

0.00

BR 09-07-16

0.00

HandFinish

Hand Finishing

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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220

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Powdercoat

Memo

0.00

Powder Coating

START TIME: 10:45 AM OVEN TEMPERATURE:

11:15 AM FINISH TIME:

320°F

M112148 09-07-16

⊗

Jul

230

QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

BR 09-07-16 ⊗

240

HandFinishing

0.00

HandFinish

Memo

0.00

Hand Finishing

Install Wearplate &Ground Wire inserts as per Dwg D3507.

BR 09-07-16

⊗.

W/O:		WORK ORDER CHANGES					
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Accept**Setup Start****Stop**

Start Date: 7/10/2009 **Start Qty:** 1.00
Required Date: 7/31/2009 **Req'd Qty:** 1.00

Cust Item ID:
Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start**Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	Pick Kit	0.00							
Packaging	Memo	0.00							
Packaging									
290	QC4- 100% Inspect kits for completeness	0.00							
QC	Memo	0.00							
Quality Control									
300	Packaging	0.00							
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D135-751-011								
	Location: _____								
	□ PPP Rev: _____								

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
310	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

[Handwritten signature] 09/07/20 *[Handwritten signature]*

MF 09-07-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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; Preflist Print

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Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009**Required Date:** 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C4A BOLT		Purchased	No			120 290	Each	274.0000	8.0000		9/11/17 SO PTO	
				<u>Warehouse</u> <u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>		
				Main Warehouse								
				ST				274				
					112082			274			112082	
D2962-150RevA		Manufactured	No			170	Each	49.0000	1.0000			
3.540 Outer Tube, Extrut												
				<u>Warehouse</u> <u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>		
				Main Warehouse								
				ST				49			D 628672 M 9-7-9	
					28672			49				
D3504-1RevC		Manufactured	No			170	Each	31.0000	2.0000			
Crossbolt Spacer												
				<u>Warehouse</u> <u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>		
				Main Warehouse								
				ST				31				
					31234			31			#2 BE 09-03-15	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09.07.17		Permanent change sequence	<i>[Signature]</i>	09.07.20		<i>[Signature]</i>	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D3504-3RevC		Manufactured	No			170	Each	24.0000	1.0000			
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Crossbolt Spacer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

ST	24	
----	----	--

31232	24	
-------	----	--

D3504-5RevC		Manufactured	No			170	Each	26.0000	2.0000			
-------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--

Crossbolt Spacer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

ST	26	
----	----	--

36181	26	
-------	----	--

D3505-1RevA		Manufactured	No			170	Each	2.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Web

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

ST	2	
----	---	--

46541	2	
-------	---	--

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Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Picklist Print

July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D3506-1RevA		Manufactured	No			170	Each	6.0000	4.0000			
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Doubler

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

FG	6	
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46538	6	
-------	---	--

D3506-3RevA		Manufactured	No			170	Each	8.0000	2.0000			
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Doubler

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

FG	8	
----	---	--

28964	4	
-------	---	--

46539	4	
-------	---	--

ALS7-1032-130		Purchased	No			240	Each	3,914.000	38.0000			
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Insert

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

ST	3914	
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108606	52	
--------	----	--

111529	1862	
--------	------	--

111779	2000	
--------	------	--

M 110511

38

BL 09-07-16

July 08, 2009 11:31:10 AM

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS20601-AD4W3		Purchased	No			240	Each	354.0000	12.0000			

Rivet

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	354	
107823	54	
111359	300	

A 12 *BE 07/07/15*

ALS4-1032-225	Purchased	No			260	Each	9,205.000	1.0000
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Insert

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	9205	
107441	28	
110768 ✓	9177	

1 *BR 09-07-16*

AN3C4A	Purchased	No			260	Each	274.0000	31.0000
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BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	274	
112082 ✓	274	

31 *BR 09-07-17.*

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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July 08, 2009 14:31:10 AM

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Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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AN526C1032R10		Purchased	No			260	Each	604.0000	2.0000			
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Screw

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	604	
108062 ✓	145	
108167	35	
110049	424	

2 *BR 09-07-17*

AN960C10L		Purchased	No			260	Each	4,998.000	33.0000			
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washer

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	4998	
103585	100	
112116 ✓	4898	

33 *BR 09-07-17*

D2965-3RevB		Manufactured	No			260	Each	6.0000	1.0000			
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Cap

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	6	
46582 ✓	6	

1 *BR 09-07-17*

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Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

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Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2965RevB		Manufactured	No			260	Each	29.0000	1.0000			

Cap, 105 Skidtube

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

29

43288

6

46800

23

D3492-041RevC

Manufactured

No

50609

260

Each

27.0000

4.0000

1

BR 09-07-17.

Plug Assembly

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

27

43816

19

45561

8

D3492-043RevC

Manufactured

No

260

Each

0.0000

4.0000

4

BR 09-07-17.

Plug Assembly

M 46407

4.

BR 09-07-17.

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Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D3492-047RevC		Manufactured	No			260	Each	66.0000	2.0000			
---------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--

Plug Assembly

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 66

27776 3

28961 45

39722 ✓ 18

D3508-1RevC		Manufactured	No			260	Each	6.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Wearplate

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 6

42973 ✓ 6

D3508-3RevC		Manufactured	No			260	Each	7.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Wearplate

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 7

42250 ✓ 1

46881 6

July 08, 2009 11:31:10 AM

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 8

July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3508-5RevC		Manufactured	No			260	Each	5.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Wearplate

Warehouse Location	Loc Qty	Loc Code
-----------------------	---------	----------

Main Warehouse

ST

42251 ✓

5

5

1

BR 09-07-17.

D3508-7RevC		Manufactured	No			260	Each	9.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Wearplate

Warehouse Location	Loc Qty	Loc Code
-----------------------	---------	----------

Main Warehouse

ST

44518 ✓

9

9

1

BR 09-07-17.

D3558-1RevB		Manufactured	No			260	Each	4.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Gasket

Warehouse Location	Loc Qty	Loc Code
-----------------------	---------	----------

Main Warehouse

ST

42533 ✓

4

4

1

BR 09-07-17

July 08, 2009 11:31:10 AM

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Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval - Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3558-3RevB		Manufactured	No			260	Each	12.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--

Gasket

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

12

45661 ✓

12

D3558-5RevB		Manufactured	No			260	Each	5.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Gasket

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

5

43244 ✓

5

D3558-7RevB		Manufactured	No			260	Each	11.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--

Gasket

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

11

36388

4

43245 ✓

7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

NAS1611-007		Purchased	No			260	Each	448.0000	1.0000			
-------------	--	-----------	----	--	--	-----	------	----------	--------	--	--	--

O-RING

↑ either o'ring.
↓

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	448	
103697	448	

NAS1611-010		Purchased	No			260	Each	362.0000	1.0000			
-------------	--	-----------	----	--	--	-----	------	----------	--------	--	--	--

O-RING

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	362	
110715	67	
110915	295	

NAS1611-013		Purchased	No			260	Each	330.0000	1.0000			
-------------	--	-----------	----	--	--	-----	------	----------	--------	--	--	--

O-RING

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	330	
106513	11	
111424 ✓	119	
111758	200	

PTO - A

4

09-07-17

July 08, 2009 11:31:10 AM

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
09-07-16	260	GARAGE O'RING FOR 2594-3 BULK 29908 this time only	BR	09-07-16				

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 11

July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C5A		Purchased	No			290	Each	546.0000	2.0000		9/11/17	SY
Bolt												

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST 546

111424 8

111707 ✓ 538

290

Each

111707

7,161.000 8.0000

2 BL 09-07-17.
9/11/17 SY

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST 7245

101291 16

104885 153

105793 236

109632 1837

110985 5000

18235 3

Main Warehouse

ST182 -84

109632 -84

109632

AN960JD10L

Washer

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Page 11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 12

July 08, 2009 11:31:10 AM

Work Order ID: 50116

Parent Item: D135-751-011RevC

Parent Item Name: Skidtube Installation

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item-Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3512-1RevC

Manufactured

No

290

Each

5.0000

2.0000

9/7/17

3^g

Wearplate

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

5

44642

5

44642

July 08, 2009 11:31:10 AM

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Page 12

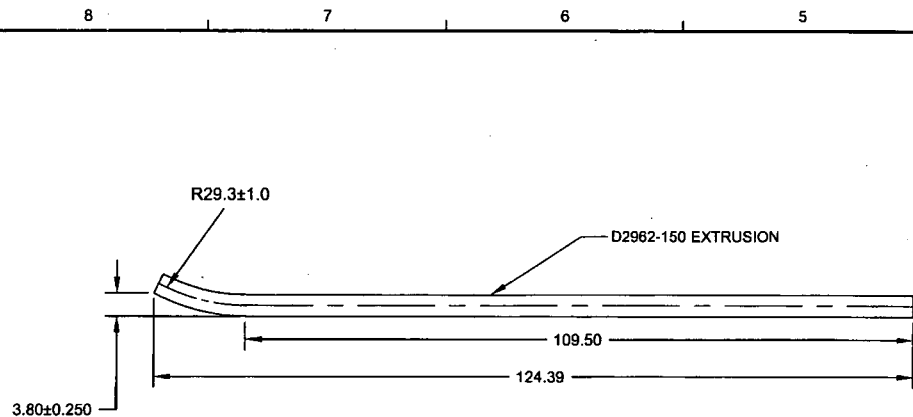
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

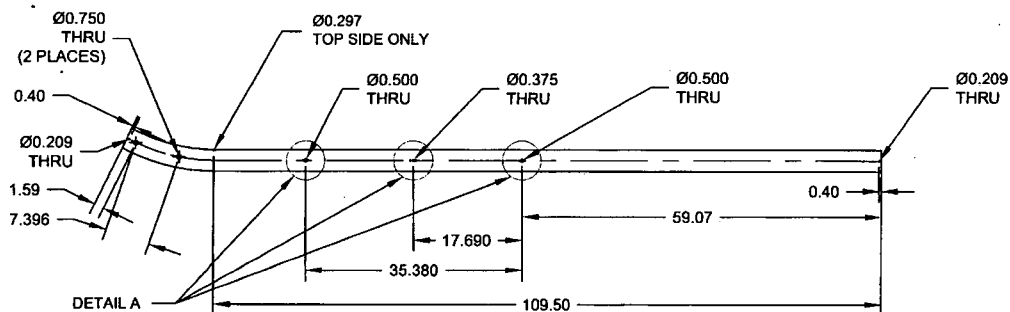
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

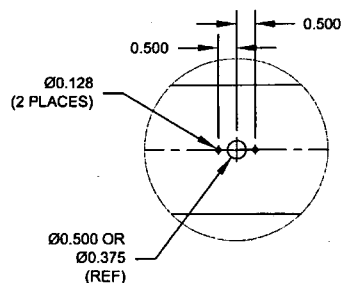
NOTE: Date & initial all entries



D3507-1 BENDING/CUTTING DETAIL



D3507-1 DRILLING DETAIL



DETAIL A
(TYP. 6 PLACES)
SCALE 3:10

Qty	Part Number	Description
X	D3507-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2965	CAP
1	D2965-3	CAP
4	D3492-041	PLUG ASSEMBLY
4	D3492-043	PLUG ASSEMBLY
2	D3492-047	PLUG ASSEMBLY
2	D3504-1	CROSS BOLT SPACER
1	D3504-3	CROSS BOLT SPACER
2	D3504-5	CROSS BOLT SPACER
1	D3505-1	WEB
4	D3506-1	DOUBLER
2	D3506-3	DOUBLER
1	D3508-1	WEARPLATE
1	D3508-3	WEARPLATE
1	D3508-5	WEARPLATE
1	D3508-7	WEARPLATE
1	D3558-1	GASKET
1	D3558-3	GASKET
1	D3558-5	GASKET
1	D3558-7	GASKET
38	AELS-1032-130	INSERT
1	AELS-1032-225	INSERT
31	AN3C4A	BOLT
2	AN3C5A	BOLT
2	AN526C1032-10	SCREW
33	AN960C10L	WASHER
12	MS20601AD4W3	RIVET

GENERAL NOTES:

- 1) FINISH:
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3505-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) DIMENSIONS: INCHES UNLESS OTHERWISE NOTED
- 4) WELDING TO BE DONE PER DART QSI 004
- 5) INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING
- 6) USE DART DRILL TEMPLATE DT8888 TO LOCATE AND DRILL Ø0.297 HOLES (38 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- 7) DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS

C	ADD D3504-5, FOR SKID GEAR DEFLECTOR; CHANGE FWD CAP BOLT TO AN526C1032-10 SCREW	DC	07.09.19
B	ADD GASKET, CHANGE HARDWARE MATL	PH	06.11.01
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	JIC	
DRAWN	PH	JIC	
CHECKED	PH	JIC	
MFG. APPR.	PH	JIC	
APPROVED	PH	JIC	
DE APPR.	PH	JIC	
DATE	07.09.19		

DART AEROSPACE USA, INC
PORT HADLOCK, WA

DRAWING NO. D3507
REV. C
SHEET 1 OF 2
TITLE EC 135 SKIDTUBE
SCALE NTS

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RELEASED
07-11-16

50116

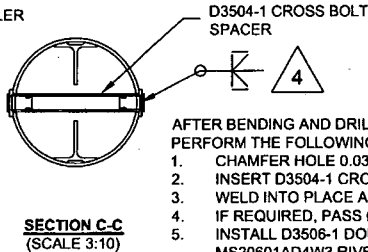
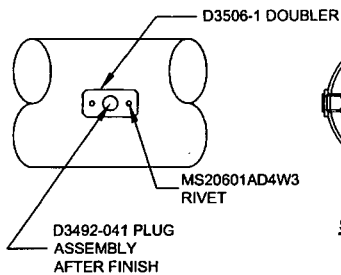
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

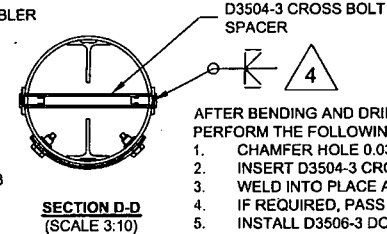
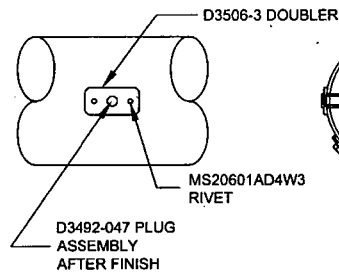
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



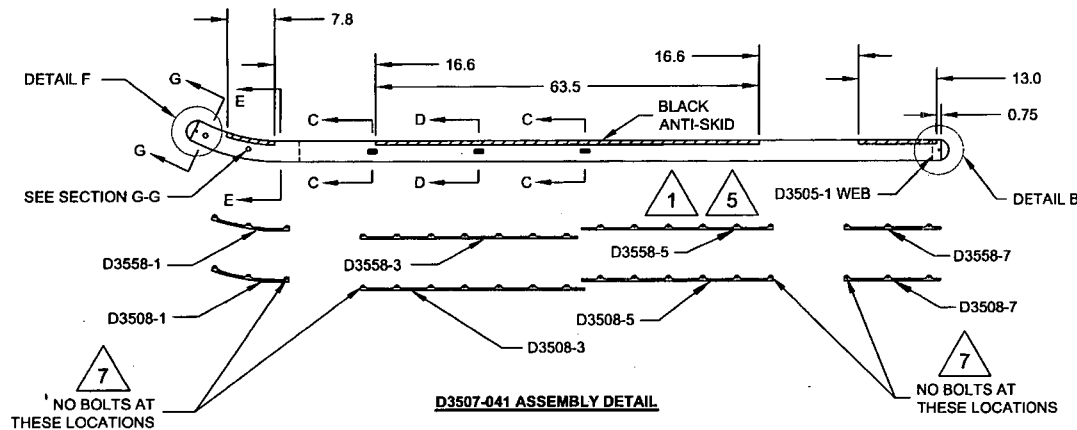
- AFTER BENDING AND DRILLING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.500 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-1 CROSS BOLT SPACER (2 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.404 (Y" DRILL) THRU HOLE
 5. INSTALL D3506-1 DOUBLER (4 PLACES) USING MS20601AD4W3 RIVET (8 PLACES)
 6. AFTER FINISH, INSTALL D3492-041 PLUG ASSEMBLY (4 PLACES)

SECTION C-C
(SCALE 3:10)

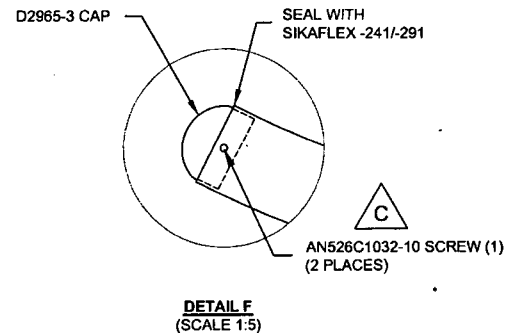


- AFTER BENDING AND DRILLING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-3 CROSS BOLT SPACER (1 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.277 (J" DRILL) THRU HOLE
 5. INSTALL D3506-3 DOUBLER (2 PLACES) USING MS20601AD4W3 RIVET (4 PLACES)
 6. AFTER FINISH, INSTALL D3492-047 PLUG ASSEMBLY (2 PLACES)

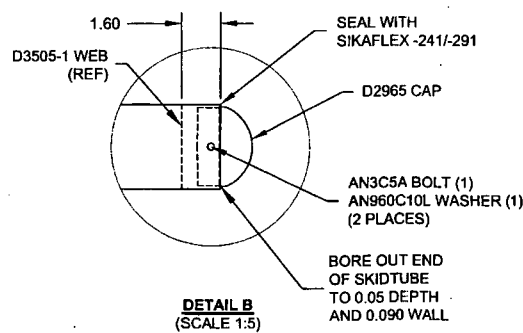
SECTION D-D
(SCALE 3:10)



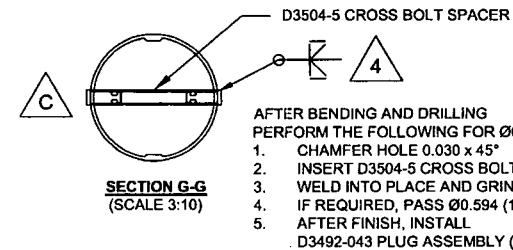
D3507-041 ASSEMBLY DETAIL



DETAIL F
(SCALE 1:5)

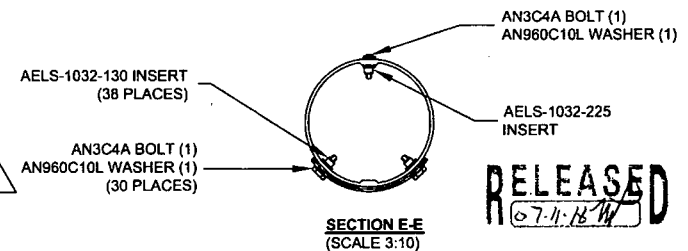


DETAIL B
(SCALE 1:5)



- AFTER BENDING AND DRILLING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.750 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-5 CROSS BOLT SPACER (2 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.594 (19/32 DRILL) THRU HOLE
 5. AFTER FINISH, INSTALL D3492-043 PLUG ASSEMBLY (4 PLACES)

SECTION G-G
(SCALE 3:10)



SECTION E-E
(SCALE 3:10)

RELEASED
07-11-18

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED	SC	DRAWING NO.	REV. C
MFG. APPR.	SC	D3507	SHEET 2 OF 2
APPROVED	TH	TITLE	SCALE
DE APPR.	TH	EC 135 SKIDTUBE	1:20
DATE	07.09.19	COPYRIGHT © 2006 BY DART AEROSPACE USA, INC	
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50116

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 179

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: B41333
Part number: A135 751011
Description: SKID tube
Welding Process: Tig[☒] Mig[]
Base material: Alum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier David A. [Signature] Date of Test Coupon 08/10/22
Welder Barclay Elliot Date of Test Coupon 08/10/22

The above named individual is qualified in accordance with AWS D17.1.2001 to weld